

**Amendments to the Claims:**

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Canceled)
2. (Currently Amended) ~~The image reading apparatus of claim 1, further comprising~~ An image reading apparatus reading an image by emitting light from a light source onto a surface of an original, and converting the light reflected from or passed through the surface of the original into an electrical signal, the image reading apparatus comprising:  
a color image pick-up device having groups of pick-up elements corresponding to a plurality of colors, the groups of pick-up elements including a plurality of pick-up element trains which are arranged in parallel to one another on a substrate, the pick-up element train being formed with a plurality of pick-up elements arranged linearly;  
an A/D conversion portion which subjects pixel output data of the color image pick-up device to A/D conversion;  
a pixel data storage device which stores the pixel data subjected by the A/D conversion portion to the A/D conversion;  
an averaging device which applies an averaging process to a plurality of adjoining pixel data on each line stored in the pixel data storage device; and  
a selection device which selects whether applying the averaging process to the plurality of adjoining pixel data on each line stored in the pixel data storage device.
3. (Original) The image reading apparatus of claim 2, wherein, in the color image pick-up device, at least one of the pick-up element trains is shifted relative to at least another of the pick-up element trains by a pitch smaller than width of one of the pick-up elements in an arrangement direction of the pick-up elements thereof.

4. (Original) The image reading apparatus of claim 3, wherein, in the color image pick-up device, the pick-up element trains are mutually arranged with a pitch integer times greater than twice each height of the pick-up elements in a direction perpendicular to an arrangement direction of the pick-up elements thereof.

5. (Original) The image reading apparatus of claim 4, wherein the groups of pick-up elements correspond to red, green and blue, respectively.

6. (Original) The image reading apparatus of claim 5, wherein each of the groups of pick-up elements includes a first element train and a second element train, and wherein the second element train is shifted from the first element train by about half pitch of width of one of the pick-up elements.

7. (Original) The image reading apparatus of claim 6, wherein each of the groups of pick-up elements includes an opening smaller than a light receiving area of one of the pick-up elements, and a shielding portion blocking off the light directed to a perpendicular edge portion of one of the pick-up elements.

8. (Currently Amended) ~~The image reading apparatus of claim 1, further comprising~~An image reading apparatus reading an image by emitting light from a light source onto a surface of an original, and converting the light reflected from or passed through the surface of the original into an electrical signal, the image reading apparatus comprising:  
a color image pick-up device having groups of pick-up elements corresponding to a plurality of colors, the groups of pick-up elements including a plurality of pick-up element trains which are arranged in parallel to one another on a substrate, the pick-up element train being formed with a plurality of pick-up elements arranged linearly;  
an A/D conversion portion which subjects pixel output data of the color image pick-up device to A/D conversion;

a pixel data storage device which stores the pixel data subjected by the A/D conversion portion to the A/D conversion;

an averaging device which applied an averaging process to a plurality of adjoining pixel data on each line stored in the pixel data storage devices; and

an input device capable of setting a mode of reading an image different in at least one of resolution and image quality,

wherein the averaging process is not performed when a mode giving priority to resolution is set by the input device but performed when the mode giving priority to image quality is set thereby in order to read the image.

9. (Original) The image reading apparatus of claim 8, wherein, in the color image pick-up device, at least one of the pick-up element trains is shifted relative to at least another of the pick-up element trains by a pitch smaller than width of one of the pick-up elements in an arrangement direction of the pick-up elements thereof.

10. (Original) The image reading apparatus of claim 9, wherein, in the color image pick-up device, the pick-up element trains are mutually arranged with a pitch integer times greater than twice each height of the pick-up elements in a direction perpendicular to an arrangement direction of the pick-up elements thereof.

11. (Original) The image reading apparatus of claim 10, wherein the groups of pick-up elements correspond to red, green and blue, respectively.

12. (Original) The image reading apparatus of claim 11, wherein each of the groups of pick-up elements includes a first element train and a second element train, and wherein the second element train is shifted from the first element train by about half pitch of width of one of the pick-up elements.

13. (Original) The image reading apparatus of claim 12, wherein each of the groups of pick-up elements includes an opening smaller than a light receiving area of one of

the pick-up elements, and a shielding portion blocking off the light directed to a peripheral edge portion of one of the pick-up elements.